



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 15 2009

REPLY TO THE ATTENTION OF:
WW-16J

U.S. Army Corps of Engineers, Louisville District
ATTN: George DeLancey, CELRL-OP-FW
P.O. Box 489
Newburgh, Indiana 47629-2678

Subject: Solar Sources Inc. / Alfordsville Mine, PN # LRL-2008-1287-gjd

Dear Mr. DeLancey:

This is in response to the above referenced public notice issued on May 7, 2009 associated with the proposed construction of a surface coal mine and reclamation project located northeast of Alfordsville, Daviess County, Indiana.

Impacts

Surface coal mining at the site would affect approximately 51,259 linear feet of ephemeral and intermittent streams, 3.34 acres of forested, emergent, and unconsolidated bottom wetlands, and 4.9 acres of open water. The streams on the proposed Alfordsville site are primarily headwater streams, i.e. 1st and 2nd order tributaries to Haw Creek and Sugar Creek, which are tributaries to the East Fork White River. Headwater streams play a vital role in the water quality, water quantity, ecology, biological integrity, and biodiversity of downstream waters.

Since coal mining is not a water dependent activity, the 404 (b)(1) Guidelines require the applicant to demonstrate that there are no practicable alternatives to the project that would have a less adverse impact on the aquatic environment. They must also demonstrate that aquatic impacts have been avoided and minimized to the maximum extent possible. On page 244, the proposed alternative is described and includes a permanent impoundment, but the completed plan and mitigation plan do not include it. Without the location of the impoundment, there is insufficient information to assess permanent impacts to the site including how it may relate to the mitigated streams and wetlands. Tables 2, 2a, and 2b (Also referred to as Table 4) give the potentially avoided and minimized length of stream and area of wetland. The applicant needs to better describe how these aquatic resources are to be avoided or the impacts minimized, which should include the maintenance of existing forested buffers.

The cumulative impacts section focuses primarily on the impact of agriculture on the East Fork White River Watershed. The applicant should also describe the cumulative impacts that coal mining has had to the headwaters of Haw Creek and Sugar Creek specifically and to the East Fork White River.

Mitigation

The mitigation proposed includes the construction of 22,000 linear feet of fully functional stream and 10 acres of forested wetland. The ratios chosen for stream mitigation are based on functional assessment as defined by the Missouri Protocol, but the rationale for defining the existing streams as fully functional or functionally impaired is not described nor does it follow the Missouri Protocol methods. How the final functionality assessments of existing streams were made as well as how the proposed mitigation streams will be assessed needs to be clarified.

The ratios for compensation proposed include no compensation for functionally impaired streams, 0.5 linear feet of stream restored for every linear foot of moderately functional stream, and 1 linear foot of stream restored for fully functional streams. Using these calculations, the applicant proposes to decrease the length of streams on site by nearly 30,000 linear feet. The information available to The United States Environmental Protection Agency (EPA) suggests that proposed compensatory mitigation is insufficient and warrants further consideration. EPA generally requires at least a 1.5:1 mitigation ratio for intermittent and ephemeral streams. However, depending on the site topography and hydrology, a lower ratio may be sufficient for ephemeral streams. Our goals is to obtain as natural a stream channel as possible and not rely solely on linear feet.

Riparian corridors proposed include 50 feet for ephemeral streams and 100 feet for intermittent streams, but the linear extent of each type of restored stream is not given making the total amount of buffer proposed unclear. In reference to the Stream Plan on page 257, we require more information regarding the specific method for designing natural channels that will be used and the on-going research referenced, including how channel sizes were selected for the Illinois Basin.

With no key, the figure labeled Mitigation Location Map, does not sufficiently display how impacts to Waters of the U.S. will be compensated. What is clear from this figure is that many of the streams will be straightened (possibly designed to meander within the straight corridors). The design of the 10 acre forested wetland parcel will need to be more specific; the map shows a trapezoidal shape between S1 and S1A. We propose a more natural wetland design and would require a better description of the proposed final topography to fully evaluate the wetland mitigation plan and stream mitigation ratio.

Regarding the Wetland Success Criteria, the hydrology criteria should be changed to be consistent with the 1987 Corps Wetland Delineation Manual and the applicable Regional Supplement. The vegetation criteria for both wetland and the riparian buffer should include standards for tree diversity, % aerial cover of invasive species, and specific criteria for understory vegetation.

A monitoring period of five years is proposed for the mitigation areas on site. The 2008 Federal Mitigation Rule (The Rule) requires a longer monitoring period for resources with slow development such as forested wetlands. We recommend a longer monitoring period (possibly 10 years) for the entire site in order to be able to evaluate the success of the site and employ remedial actions if necessary. The applicant has not proposed an adequate site-protection instrument or long-term management plan for the site as required by The Rule. The proposed mitigation plan includes a statement that financial assurances will be provided; the details should be decided prior to permitting and should also include long-term financial assurances.

Summary

The EPA finds this project may have substantial and unacceptable adverse impacts on aquatic resources of national importance. Therefore, we recommend denial of the project, as currently proposed. This letter follows the field level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of the Army, Part IV, paragraph 3(a) regarding Section 404(q) of the Clean Water Act.

Please notify us of the applicant's response to these comments and any changes to the permit application. Please notify us prior to issuing a final permit decision. Thank you for the opportunity to provide comments on this public notice. Please call Melanie Haveman of my staff with any questions at (312) 886-2255.

Sincerely,



Kevin Pierard, Chief
Watersheds & Wetlands Branch

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